

**d. Remarks**CLAIM AMENDMENTS

The amendment to claim 8 is, e.g., supported at page 4, lines 2 – 4; page 5, lines 7 – 8; page 6, lines 18 – 21; and Figures 2 and 17.

The amendment to claim 19 is, e.g., supported at page 11, lines 2 – 3 and 17 – 19, and Figs. 11 and 17.

New claims 29 – 30 are, e.g., supported at page 10, lines 10 – 11, and Fig. 17.

New claim 31 is, e.g., supported at page 6, lines 22 – 23 and Fig. 17.

ART REJECTIONS

**At page 2, the Office Action rejects claims 8, 10 – 15, and 21 – 26 as anticipated by U.S. Patent 4,962,053 of Imai et al (Herein, referred to as Imai.).**

Present claim 8, recites:

The substrate includes a subcollector that forms an electrical contact for the collector layer, the subcollector being located outside of the portion of the substrate that is vertically below part of the base layer.

As an illustration, exemplary subcollectors (27, 92) of Figures 2 and 15 do not occupy the entire footprint of exemplary base layers (25, 100).

Figures 1H and 2 – 7 of Imai do not show or suggest such a subcollector. In particular, while Figures 1H and 2 – 7 of Imai may show a N<sup>+</sup>-type buried region 12 that functions as a subcollector for collector layer 14, the N<sup>+</sup>-type buried region 12 includes a portion that is located vertically below each part of the base layer. In Figs. 1H and 2 – 7, the N<sup>+</sup>-type buried region 12 occupies each lateral part of the footprint that is made by the base layers therein. In contrast, the present application claims apparatus in which the subcollector does not occupy the entire footprint of the base layer.

Dependent claims 10, 12 – 14, 16 – 19, 22, 25, and 29 – 31 are novel over Imai, at least, by their dependence on present claim 8.

**The Office Action did not reject old claim 8 over other art.**

CONCLUSIONS

For the above reasons, Applicants request allowance of claims 8, 10, 12 – 14, 16 – 19, 22, 25, and 29 – 31 as presented here.

NO FEE DUE.

In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Deposit Account No. 12-2325** as required to correct the error.

Respectfully,



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Docket Administrator (Room 3J-219)  
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